

Remarks

This paper is in response to the Office Action dated December 8, 2005. Claims 1-3 and 6-11 have been amended. New claims 18-20 have been added. Claims 1-20 are currently pending. Reexamination and reconsideration are respectfully requested.

Applicant proposes to amend the title in a manner similar to that suggested by the Examiner.

The disclosure was amended to address the informalities noted by the Examiner with respect to the figure descriptions on page 5 of the specification.

Claims 1-10 were objected to due to informalities in independent claim 1 and dependent claim 8. Claims 1 and 8 have been amended to address these informalities.

Claims 2, 3, 7, 9, and 10 have been amended for clarity and not in response to any objections or rejections by the Examiner.

Claims 1-10 were rejected under 35 U.S.C. 112, first and second paragraphs. To expedite prosecution, applicant has amended independent claim 1 to address the language quoted by the Examiner. Claim 8 has also been amended to address the antecedent basis issue raised by the Examiner. Applicant reserves the right to further prosecute the originally filed claims, if desired. Applicant respectfully submits, that claims 1-10 are in compliance with section 112.

Claims 1-6, 8, and 10 were rejected under 35 U.S.C. 102(b) as unpatentable over U.S. Patent No. 6,013,573 to Yagi ("Yagi"). The rejection is respectfully traversed.

Applicant respectfully submits that the Examiner cited no portion of Yagi that describes or suggests a method including all of the elements of claim 1, as amended, including, "forming a trench extending into a substrate" and "removing the sacrificial layer from the trench to form a cavity extending a distance into the substrate." Accordingly, applicant respectfully submit that for at least the above reason, the rejection of claim 1 and its dependent claims 2-6, 8, and 10, should be withdrawn.

Claims 7, 11, and 12 were rejected under 35 U.S.C. 103(a) as unpatentable over Yagi in view of U.S. Patent No. 5,830,804 to Cleaves et al. ("Cleaves"). The rejection is respectfully traversed. Claim 11 was amended for clarity and not in response to any rejection, to delete the term "and" from line 5 of the claim.

Applicant respectfully submits that the Examiner has not met his burden to establish a prima facie case of obviousness. Applicant submits that one of ordinary skill in the art would not make the proposed combination. Cleeves relates to a method for encapsulating a dielectric material. (Cleeves Abstract and col. 1, lines 7-8). The portion of Cleeves cited by the Examiner appears to describe the use of a “dielectric 208 to be encapsulated”. (Cleeves at col. 4, line 63). The “[d]ielectric 208 is preferable applied in a liquid state to enable good gap fill between adjacent conductive lines 202. In this way, high aspect ratio openings . . . can be easily filled enabling increased packing density of metal lines 202.” (Cleeves at col. 5, lines 3-7). Applicant respectfully submits that one of ordinary skill in the art would not be motivated to combine Yagi and Cleeves as suggested by the Examiner. The Examiner cited no portion of the art that suggests that one desiring to form the air bridge type structure of Yagi would look to a method for encapsulating a dielectric material, or be motivated to be concerned with gap filling, or to reduce capacitive coupling when filling gaps between adjacent conductive lines, as in Cleeves.

Accordingly, applicant respectfully submits that the Examiner has not met his burden to establish obviousness. For at least the reasons above, applicant submits that the rejection of claims 7, 11 and 12 should be withdrawn.

In addition, claim 7 depends from claim 1. Even if, for some reason, the references were combined (which applicant does not think is proper), the Examiner’s citations to Cleeves do not overcome the deficiencies of Yagi, as described above for claim 1. Accordingly, applicant also submits that for at least this reason, the rejection of claim 7 should be withdrawn.

Claim 9 was rejected under 35 U.S.C. 103(a) as unpatentable over Yagi in view of JP-5357978. The rejection is respectfully traversed. Claim 9 depends from claim 1. The Examiner’s citations to JP-5357978 do not overcome the deficiencies of Yagi, as described above for claim 1. Accordingly, applicant submits that for at least this reason, the rejection of claim 9 should be withdrawn.

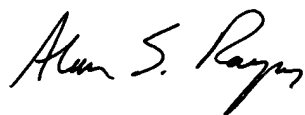
Applicant thanks the Examiner for indicating the claims 13-17 were allowable if rewritten in independent form. In view of the above discussion regarding claims 11-12, applicant has not amended claims 13-17.

New claims 18-20 have been added. It is believed that no new matter has been entered. Support for the claims may be found throughout the specification, original claims, and figures. Applicant respectfully submits that claims 18-20 are in patentable form.

The Office Action included various comments concerning the art and the non-patentability of certain claims. The discussion above has directly addressed some of the Examiner's comments and any of the Examiner's comments not specifically discussed above are deemed moot at this time in view of this response.

Applicant respectfully submits that the pending claims are in condition for allowance. Reexamination and reconsideration are respectfully requested. If, for any reason, the application is not in condition for allowance, the Examiner is requested to telephone the undersigned to discuss the steps necessary to place the application into condition for allowance

Respectfully submitted,



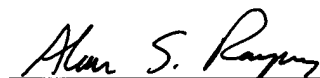
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March 8, 2006
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